Advertised June 3, 2013 (REVISED June 4, 2013)

DEPARTMENT OF TRANSPORTATION
PROFESSIONAL SERVICES MANAGEMENT UNIT
REQUEST FOR LETTERS OF INTEREST

THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DESIRES TO ENGAGE A PRIVATE ENGINEERING FIRM FOR THE PURPOSE OF PREPARING DETAILED PLANS, SPECIFICATIONS AND AN ENGINEER'S ESTIMATE FOR THE REHABILITATION/EXPANSION OF THE HIGH POINT COMPUTERIZED TRAFFIC SIGNAL SYSTEM (C-5558). THE COMPUTERIZED TRAFFIC SIGNAL SYSTEM WILL CONSIST OF 256+ INTERSECTIONS AND 52+ CCTV CAMERAS UTILIZING NEW SINGLE MODE FIBER OPTIC COMMUNICATIONS CABLE. THIS PROJECT WILL INCLUDE NEW 2070 CONTROLLERS AND ASSOCIATED 330 TYPE CABINETS; UPGRADING OF EXISTING PEDESTRIAN SIGNALS TO COUNTDOWN; INSTALLATION OF NEW TRAFFIC CONTROL CENTER EQUIPMENT AND INSTALLATION OF A NEW ETHERNET COMMUNICATIONS NETWORK.

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The primary and/or subconsultant firm(s) shall be Pre-qualified to perform services for the Transportation Mobility and Safety Division to perform the below referenced work. The work codes required are

- **00209 – Signal System Design**
- **00207 – Signal Design**
- **00123 – Intelligent Transportation System Design**
- ~~**00310 – Utility Make-Ready Design**~~

The development of the Plans and Specifications shall adhere to the requirements of the Triad/Piedmont Regional ITS Architecture as defined in the North Carolina Statewide ITS Strategic Deployment Plan. The Plans and Specifications should be complete within eighteen (18) months from Notice to Proceed. The finalized package shall be a stand-alone document complete and ready for letting by the Department.

The plans shall be prepared in electronic format. Electronic files of the plans shall be prepared using MicroStation, electronic files of the Project Special Provisions shall be prepared using Microsoft Word, and electronic files of the Engineer's Estimate shall be prepared using Microsoft Excel.

The method of payment for this project will be LUMP SUM.

The Scope of Work as a minimum will consist of the following:

Project Management:

- Coordination and communications with project steering committee members through meeting agendas, monthly design meetings, meeting minutes, monthly invoices, project progress reports, technical memoranda and functional design drawings. Monthly design meetings will be conducted in High Point.

System Boundary Identification and System Evaluation:

- Define the study area of which traffic signals (existing and proposed) will be incorporated into the computerized traffic signal system. Evaluate alternative system designs against

each other and against the existing system. Develop a Systems Engineering Document that defines the physical and functional requirements of the system to ensure consistency with the Regional ITS Architecture and to ensure conformance with the requirements of 23 CFR 940.11 Project Implementation.

System Data Collection:

- Perform an inventory of intersections to determine the current characteristics of the field hardware including: the physical layout of the cabinet; the conduit entrances in the foundation; required cabinet modifications or replacement to accommodate 330 Type cabinets; electrical service arrangement; the location of the existing local and system detectors; and the phasing and signal head arrangement at each intersection.

Identify Local Intersection Improvements & Removal:

- Verify all intersection displays are in compliance with the MUTCD and NCDOT standards. Identify all intersection displays that do not currently utilize LED technology. Review at-grade rail crossings to ensure the necessary preemption phasing and associated equipment are existing. Make recommendations for improvements to the overall safety and efficiency of intersections.
- Perform an Engineering Study for possible removal of traffic signals at intersections identified by the City of High Point.

Basemapping/Utility Make-Ready Plan Development:

- Coordinate with the NCDOT and the City of High Point to obtain base mapping. Review the routing of the existing aerial communications cable to identify NESC compliance for the possible over-lashing of new fiber optic cable. Investigate the viability of reusing existing underground conduits. Identify the most cost-effective route for the placement of new fiber optic cable. Prepare preliminary cable routing plans for use in the utility walk-through, identifying both aerial and underground applications. May include field walk through with the utilities to achieve
  buy-in on the routes and to agree upon needed adjustments and attachment points.

Railroad Encroachment Permits:

- Identify the railroad crossings, collect all data required for railroad encroachment permits, complete the technical information, prepare the figures and exhibits of the permits, and prepare the encroachment applications.

Historical Property Identification*:*

- Identify known historical properties and districts within the proposed signal system project boundaries. Identify the placement of new signal items such as poles, cabinets, mast arms, CCTV cameras, or other work that would cause a possible effect on the historical property. Provide detailed figures that illustrate the location and types of work planned within or adjacent to historic properties.

Communications Design:

- Identify the size of the required fiber optic communications network based on the functional design requirements to accommodate all system features and to ensure a sufficient number of spare fibers for future system expansion. Design the fiber optic communications system to include conduit networks, aerial networks, splice cabinets, and the associated fiber optic splice details.

CCTV Monitoring System:

- Identify potential locations for CCTV cameras. Conduct field surveys of each location to determine the best visibility based on horizontal curves of the roadway and obstructions such as buildings and trees. Record the roadway in each direction at a height similar to that of the proposed CCTV camera attachment. Develop detailed drawings for the placement of the CCTV assembly identifying the placement of CCTV poles with associated distances from edges of pavement.

Central System/Traffic Control Center:

- Develop the functional requirements for the Traffic Control Center based on the overall needs of the computerized traffic signal system and to comply with the Triad/Piedmont Regional ITS Architecture as defined in the Statewide ITS Strategic Deployment Plan. Identify all required system hardware.

Signal System PS&E:

- Develop a complete package containing all elements required of a standard NCDOT signal system design including: Typical Details; Special Details; Traffic Control Plans; CCTV Monitoring System Details; System Detection Placement; Intersection Improvement Plans; Cable Layout Sheets depicting installation of the communications cable, cabinet equipment work to be performed at intersections, work to be performed to install ITS features; Splice Diagrams depicting individual fiber splicing in a graphical format, Schedules of Work, Pay Items, Project Special Provisions, and an Engineer's Estimate of Probable Construction Cost.

The firm must have demonstrated design expertise in Intelligent Transportation Systems and Central Computerized Traffic Signal Systems. The Engineers performing the work and in responsible charge of the work must be licensed Professional Engineers in the State of North Carolina and must have good ethical and professional standing. Any firm wishing to be considered must be properly registered with the Office of the Secretary of State and with the North Carolina Board of Registration for Professional Engineers and Land Surveyors.
Any firm proposing to use corporate subsidiaries or subcontractors must include a statement that these companies are properly licensed with the NC Board of Registration for Professional Engineers and Land Surveyors. It will be the responsibility of the prime firm to verify the license of any corporate subsidiary or subcontractor prior to submitting a Letter of Interest. The firm must have the financial ability to undertake the work and assume the liability. The selected firm(s) will be required to furnish proof of Professional Liability insurance coverage in the minimum amount of $1,000,000. The firm(s) must have an adequate accounting system to identify costs chargeable to the project.

SMALL PROFESSIONAL SERVICE FIRM (SPSF) PARTICIPATION

The Department encourages the use of Small Professional Services Firms (SPSF). Small businesses determined to be eligible for participation in the SPSF program are those meeting size standards defined by Small Business Administration (SBA) regulations, 13 CFR Part 121 in Sector 54 under the North American Industrial Classification System (NAICS). The SPSF program is a race, ethnicity, and gender neutral program designed to increase the availability of contracting opportunities for small businesses on federal, state or locally funded contracts. SPSF participation is not contingent upon the funding source.

The Firm, at the time the Letter of Interest is submitted, shall submit a listing of all known SPSF firms that will participate in the performance of the identified work. The participation shall be submitted on the Department's Subconsultant Form RS-2. RS-2 forms may be accessed on the website at https://apps.dot.state.nc.us/quickfind/forms/Default.aspx.

The SPSF must be prequalified with the Department to perform the work for which they are listed.

Real-time information about firms doing business with the Department and firms that are SPSF certified through the Contractual Services Unit is available in the Directory of Transportation Firms. The Directory can be accessed by the link on the Department's homepage or by entering https://apps.dot.state.nc.us/vendor/directory/ in the address bar of your web browser.

The listing of an individual firm in the Department's directory shall not be construed as an endorsement of the firm.

PREQUALIFICATION

The Department maintains on file the qualifications and key personnel for each approved discipline, as well as any required samples of work. Each year on the anniversary date of the company, the firm shall renew their prequalified disciplines. If your firm has not renewed its application as required by your anniversary date or if your firm is not currently prequalified, please submit an application to the Department ***prior*** to submittal of your letter of interest. An application may be accessed at https://apps03.dot.state.nc.us/vendor/prequal. Having this data on file with the Department eliminates the need to resubmit this data with each letter of interest.

Even though specific DBE/MBE/WBE goals are not required for this project, the Department of Transportation is committed to providing opportunity for small and disadvantaged businesses to perform on its contracts through established Department goals. The Firm, subconsultant and subfirm shall not discriminate on the basis of race, religion, color, national origin, age, disability or sex in the performance of this contract.

EVALUATION

All qualified firms who submit responsive Letters of Interest will be considered.

The evaluation of firms submitting letters of interest for this project will be based on the following considerations and their respective weights:

1. The evaluation of the performance on any previous contracts with the NCDOT – Transportation Mobility and Safety and/or City of High Point Traffic Engineering Divisions. (35%)

2. The Firm's experience and staff to perform the type of work required, including any designated sub-consultants. (35%)

3. The Firm's ability to meet the time schedule established for the work. (30%)

North Carolina firms qualified to do the required work will be given priority consideration. A North Carolina firm is a firm that maintains an office in North Carolina staffed with an adequate number of employees judged by the Department to be capable of performing a majority of the work required.

After reviewing qualifications, if firms are equal on the evaluation review, then those qualified firms with proposed SPSF participation will be given priority consideration.

FORMAT FOR SUBMISSION OF A
PROFESSIONAL SERVICES MANAGEMENT UNIT
LETTER OF INTEREST

All letters of interest are limited to fifteen (15) pages (RS-2 forms are not included in the page count) inclusive of the cover sheet, and shall be typed on 8 1/2" x 11" sheets, single spaced, one sided. **ONLY ELECTRONIC LETTERS OF INTEREST WILL BE ACCEPTED**. Letters of interest containing more than fifteen (15) pages will not be considered.

Letters of Interest should be submitted in .pdf format using software such as Adobe, CutePDF, PDF Writer, Docudesk, deskPDF, etc.

One copy of the Letter of Interest should be sent through NCDOT's FTS system **as a .pdf file**: psmu-411@ncdot.gov . The FTS system will send you an electronic receipt when your LOI is downloaded to PSMU's server. **Paper copies are not required.** The subject line should contain the PEF's Name, and "LOI for High Point Computerized Signal System".

If an interested firm does not have an FTS account they should send a request through e-mail to psmu-411@ncdot.gov . A response will be sent via the FTS system that will provide a login username, password, and login procedures.

Section I - Cover/Introductory Letter

The introductory letter should be addressed to Mr. Scott D. Blevins, P.E., Manager, Professional Services Management Unit. Said letter is limited to two (2) pages and should contain the following elements of information:

- Expression of firm's interest in the work;
- Statement of whether firm is on register;
- Date of most recent private engineering firm qualification;
- Statement regarding firms possible conflict of interest for the work; and
- Summation of information contained in the letter of interest **including an email address and telephone number for the firm's contact person.**

Section II - Evaluation Factors

This section is limited to seven (7) pages and should contain information regarding evaluation and other factors listed in the advertisement such as:

- Identify project personnel/subconsultants qualifications and experience as related to this project;
- Unique qualifications of key team members;
- Identify type and location of similar work performed within last three (3) years;
- Understanding of project approach;
- Any innovative approaches to be used;
- List all contracts, type of work, percentage complete, and outstanding balances with the NCDOT – Transportation Mobility and Safety Division and/or City of High Point Traffic Engineering Divisions;
- List any work being performed as a subconsultant on any NCDOT – Transportation Mobility and Safety Division and/or City of High Point Traffic Engineering Division projects. This work should be listed by TIP, prime consultant, type of work and outstanding balance;
- List any contracts that selections have been made, but not approved by the Board of Transportation; and
- List any upcoming work that may be a subsequent phase to an existing contract

Note: If a project team or subconsultant encounters personnel changes, or any other changes of significance dealing with the company, NCDOT should be notified immediately.

Section III - Supportive Information

This section is limited to six (6) pages and should contain the following information:

- Capacity Chart/Graph (available work force);
  Organizational chart indicating personnel to be assigned by discipline;
- Resumes of key personnel;
  Names, classifications, and location of the firm's North Carolina employees and resources to be assigned to the advertised work; and
- Other information.

APPENDICES-

CONSULTANT CERTIFICATION Form RS-2

Completed Form RS-2 forms SHALL be submitted with the firm's letter of interest. This section is limited to the number of pages required to provide the requested information.

Submit Form RS-2 forms for the following:

- Prime Consultant firm (Prime Consultant Form RS-2 Rev 1/14/08), and;
- ANY/ALL subconsultant firms (Subconsultant Form RS-2 Rev 1/15/08) to be or anticipated to be utilized by your firm.

Complete and ***sign*** each Form RS-2 (instructions are listed on the form).

In the event the firm has no subconsultant, it is required that this be indicated on the Subconsultant Form RS-2 by entering the word "None" or the number "ZERO" and *signing* the form.

The required forms are available at:
https://apps.dot.state.nc.us/quickfind/forms/Default.aspx.

Private consulting firms are invited to have letters of interest for furnishing engineering services **FTS-ed** to the Professional Services Management Unit by **12:00 p.m.** on **June 19, 2013**. **Letters of interest received after this deadline will not be considered.**

Firms submitting letters of interest are encouraged to carefully check them for conformance to the requirements stated above. If letters of interest do not meet ALL of these requirements or if they are sent by any other means other than NCDOT's FTS system, or to any address other than psmu-411@ncdot.gov they will be disqualified. No exception will be granted.

The e-mail address is:

psmu-411@ncdot.gov

Any questions concerning the advertisement or scope should be directed to Scott Blevins, PE, at sblevins@ncdot.gov or by telephone at 919-707-7132.

If you feel information provided is inadequate to submit a Letter of Interest, please contact Mr. Blevins.

The firm(s) selected will be notified by **July 11, 2013**. Notification will not be sent to firms not selected.

The firm(s) selected will be listed on the Internet at
https://connect.ncdot.gov/letting/Pages/Private-Engineering-Firm-Advertisements-.aspx
by **July 12, 2013**.